
July 7, 2005



Defense Infrastructure

Medical Joint Cross-Service Group
Data Integrity and Internal Control
Processes for Base Realignment and
Closure 2005
(D-2005-089)

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Acronyms

AAA	Army Audit Agency
BRAC	Base Realignment and Closure
COBRA	Cost of Base Realignment Actions
DoD OIG	Department of Defense Office of Inspector General
ICP	Internal Control Plan
IEC	Infrastructure Executive Council
ISG	Infrastructure Steering Group
JCSG	Joint Cross-Service Group
JPAT 7	Joint Process Action Team Criterion Number 7
MJCSG	Medical Joint Cross-Service Group
OSD	Office of the Secretary of Defense
SOP	Standard Operating Procedure



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July 7, 2005

MEMORANDUM FOR CHAIR, MEDICAL JOINT CROSS-SERVICE GROUP

SUBJECT: Report on Medical Joint Cross-Service Group Data Integrity and Internal Control Processes for Base Realignment and Closure 2005
(Report No. D-2005-089)

We are providing this report for your information and use. We performed the audit in response to a request from the Under Secretary of Defense for Acquisition, Technology, and Logistics. We considered comments from the Medical Joint Cross-Service Group on a draft of this report when preparing the final report. The complete text of the comments is in the Management Comments section of the report.

We appreciate the courtesies extended to the audit staff. Questions should be directed to Mr. James A. O'Connell at (757) 872-4716 or Mr. Robert T. Briggs at (703) 604-8872. See Appendix C for the report distribution. The audit team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

Michael A. Joseph
Acting Assistant Inspector General
for Readiness and Logistics Support

Department of Defense Office of Inspector General

Report No. D-2005-089

(Project No. D2003-D000LF-0132.000)

July 7, 2005

Medical Joint Cross-Service Group Data Integrity and Internal Control Processes for Base Realignment and Closure 2005

Executive Summary

Who Should Read This Report and Why? Office of the Secretary of Defense personnel, members of the Medical Joint Cross-Service Group, and anyone interested in the Base Realignment and Closure (BRAC) process should read this report. The report discusses the validity, integrity, and documentation of data used by the Medical Joint Cross-Service Group for BRAC 2005.

Background. BRAC 2005 is the formal process outlined in Public Law 101-510, “Defense Base Closure and Realignment Act of 1990,” as amended, under which the Secretary of Defense may realign or close military installations inside the United States and its territories. As part of BRAC 2005, the Under Secretary of Defense for Acquisition, Technology, and Logistics issued “Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures,” April 16, 2003, which states that the Department of Defense Office of Inspector General would review the accuracy of BRAC data and the certification process. In addition, the Department of Defense Office of Inspector General was responsible for validating that the appropriate authorities had certified the BRAC data used by the Joint Cross-Service Groups for developing recommendations.

BRAC 2005 established procedures to provide a fair process for base realignments and closures in the United States and its territories and was divided into the following data calls—capacity analysis, supplemental capacity, military value, Cost of Base Realignment Actions, Joint Process Action Team Criterion Number 7, and scenario specific. The supplemental capacity, military value, Cost of Base Realignment Actions, and Joint Process Action Team Criterion Number 7 data calls were collectively known as the second data call. This report discusses the Medical Joint Cross-Service Group, one of seven joint cross-service groups involved in the BRAC 2005 process.

The Surgeon General of the Air Force chaired the Medical Joint Cross-Service Group. Principal members included the Deputy Assistant Secretary of Defense (Health Budgets and Financial Policy), the Joint Staff Surgeon, the Surgeon General of the Navy, the Deputy Surgeon General of the Army, and the Medical Officer of the Marine Corps. The Medical Joint Cross-Service Group BRAC analyses were divided among three functional areas: Education and Training; Healthcare Services; and Research, Development, and Acquisition.

Results. We evaluated the Medical Joint Cross-Service Group use of certified data and whether the Medical Joint Cross-Service Group had an adequate audit trail for capacity analysis and military value analysis. We also evaluated the adequacy of the Medical Joint Cross-Service Group audit trail for the input into the Cost of Base Realignment

Actions model and whether the Medical Joint Cross-Service Group complied with the Office of the Secretary of Defense internal control plan and the Medical Joint Cross-Service Group standard operating procedures.

The Medical Joint Cross-Service Group used certified data and data from authoritative sources approved by the Infrastructure Steering Group and had developed an adequate audit trail for its capacity analysis. In a draft of this report, sampling results indicated the Medical Joint Cross-Service Group used certified data and data from authoritative sources approved by the Infrastructure Steering Group for two of three functional areas (Education and Training, and Healthcare Services) and was developing an audit trail for its military value analysis. However, because of the number of errors or insufficient supporting documentation for the initial sample, we could not predict that the third functional area (Research, Development, and Acquisition) primarily used certified data in its military value analysis and we believed the military value audit trail needed improvement. Our reevaluation of additional supporting documentation for the initial sample and validation of a second sample indicated the Research, Development, and Acquisition functional area also used certified data and data from authoritative sources in its military value analysis. Further, although the military value analysis is a complex process that may require assistance and computer proficiency to follow, our review of updated documentation indicated the Medical Joint Cross-Service Group developed an adequate audit trail for its military value analysis. The Medical Joint Cross-Service Group also had an adequate audit trail for the input into the Cost of Base Realignment Actions model. In addition, the Medical Joint Cross-Service Group generally complied with established internal control procedures from the Office of the Secretary of Defense internal control plan and the Medical Joint Cross-Service Group standard operating procedures. We believe the Medical Joint Cross-Service Group BRAC 2005 process has generally been adequate and reliable. See the Finding section of the report for details of the audit results. See Appendix A for a discussion of our review of the management control program and prior audit coverage.

Management Comments. We provided a draft of this report on June 2, 2005. Although no comments were required, the Chair, Medical Joint Cross-Service Group stated that the Medical Joint Cross-Service Group worked diligently over the past two years to ensure compliance with stringent OSD guidance on the use of certified data in the capture of capacity analysis data from the field, and the conduct of its military value analysis. The Chair also provided additional documentation to support the Research, Development, and Acquisition functional area military value analysis including a memorandum certifying the Army military value data, additional Army source data files, and Navy source data files. See the Management Comments section for the complete text of the comments.

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Background

Base Realignment and Closure 2005. Public Law 101-510, “Defense Base Closure and Realignment Act of 1990,” as amended, establishes the procedures under which the Secretary of Defense may realign or close military installations inside the United States and its territories. Congress authorized a Base Realignment and Closure (BRAC) in 2005. The law authorizes the establishment of an independent Commission to review the Secretary of Defense recommendations for realigning and closing military installations. The deadline for the Secretary of Defense to submit recommendations to the independent Commission was May 16, 2005.

In the Secretary of Defense “Transformation Through Base Realignment and Closure (BRAC 2005) Memorandum,” November 15, 2002, the Secretary of Defense established two senior groups to oversee and operate the BRAC 2005 process. The two senior groups were the Infrastructure Executive Council (IEC) and the Infrastructure Steering Group (ISG). Distinct functional boundaries and levels of authority separated these two groups. The Secretary of Defense established and chartered the IEC and the ISG as the BRAC 2005 deliberative bodies responsible for leadership, direction, and guidance.

Infrastructure Executive Council. The IEC, chaired by the Deputy Secretary of Defense and composed of the Secretaries of the Military Departments and their Chiefs of Services; the Chairman of the Joint Chiefs of Staff; and the Under Secretary of Defense for Acquisition, Technology, and Logistics, was the policymaking and oversight body for the entire BRAC 2005 process. The IEC was the approval authority for all BRAC recommendations to the Secretary of Defense.

Infrastructure Steering Group. The ISG was chaired by the Under Secretary of Defense for Acquisition, Technology, and Logistics and composed of the Vice Chairman of the Joint Chiefs of Staff, the Military Department Assistant Secretaries for Installations and Environment, the Service Vice Chiefs, and the Deputy Under Secretary of Defense for Installations and Environment. The ISG oversaw the joint cross-service analyses of common business-oriented functions and ensured that process is integrated with the Military Department and Defense agency-specific analyses of all other functions. The ISG provided progress reports to the IEC. The Under Secretary of Defense for Acquisition, Technology, and Logistics had the authority and responsibility for issuing the operating policies and detailed direction necessary to conduct the BRAC 2005 analyses.

- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures,”(Policy Memorandum One), April 16, 2003.** Policy Memorandum One applies to the Military Departments and Defense agencies (DoD Components), and Joint Cross-Service Groups (JCSG) in developing the Secretary of Defense BRAC recommendations for submission to the BRAC 2005 Commission for its review. Policy Memorandum One describes policy, responsibilities, and procedures to be followed by participants in the BRAC process. Additionally, Appendix B of Policy Memorandum One is the Office of the Secretary

of Defense (OSD) internal control plan (ICP) for the BRAC 2005 process, which the JCSGs used in order to ensure the accuracy of data collection and analysis.

- **“Policy Memorandum Two—BRAC 2005 Military Value Principles,” October 14, 2004.** Policy Memorandum Two states that all recommendations made by the JCSGs and Military Departments will use military value as the determining factor. When making closure or realignment recommendations, JCSGs and Military Departments applied appropriate use of military judgment in order to meet all requirements by the Department. Military judgment is applied through the following principles: Recruit and Train; Quality of Life; Organize; Equip; Supply, Service, and Maintain; Deploy and Employ (operational); and Intelligence.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Three—Selection Criterion 5,” December 7, 2004.** Policy Memorandum Three describes how BRAC Selection Criterion 5 will be implemented during the BRAC process. JCSGs and Military Departments applied Selection Criterion 5 to their scenarios to estimate the projected costs and savings.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Four—Selection Criteria 7 and 8,” December 7, 2004.** Policy Memorandum Four provides guidance and clarification on the assessment of communities’ infrastructure and consideration of the environmental impacts of realignment and closure scenarios.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Five—Homeland Defense,” December 10, 2004.** Policy Memorandum Five gives guidance that establishes policies and procedures for the Military Departments and the JCSGs to ensure that the Department retains the necessary capabilities to support the homeland defense mission.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Six—Selection Criterion 6,” December 20, 2004.** Policy Memorandum Six provides guidance that establishes policies and procedures for the Military Departments and the JCSGs on how to use the Economic Impact Tool when applying BRAC Selection Criterion 6 to realignment and closure scenarios.

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- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Seven—Surge,” January 4, 2005.** Policy Memorandum Seven provides guidance for the Military Departments and JCSGs to meet the DoD statutory requirement to consider surge in realignment and closure scenarios.
 - **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Eight—Selection Criterion 8,” January 4, 2005.** Policy Memorandum Eight provides guidance on how to identify the environmental impacts of a particular scenario in order to provide decision makers with the information they need to fully consider the impacts.

Joint Cross-Service Groups. A primary objective of BRAC 2005, in addition to realigning base structure, was to examine and implement opportunities for greater joint activity. Prior BRAC analyses considered all functions on a Service-by-Service basis and, therefore, did not result in the joint examination of functions that cross Services. The JCSGs addressed issues that affect common business-oriented support functions, examined functions in the context of facilities, and developed realignment and closure recommendations based on force structure plans of the Armed Forces and on selection criteria. The JCSGs reported their results through the ISG to the IEC. OSD established seven JCSGs—Education and Training, Headquarters and Support Activities, Industrial, Intelligence, Medical, Supply and Storage, and Technical. Each JCSG was responsible for overseeing the joint cross-service analysis of functions within its area.

Medical Joint Cross-Service Group. The Under Secretary of Defense for Acquisition, Technology, and Logistics, as the Chairman of the ISG, established the Medical Joint Cross-Service Group (MJCSG), one of the seven JCSGs, on March 15, 2003. The Surgeon General of the Air Force chaired the MJCSG. Other principal members were the Deputy Assistant Secretary (Health Budgets and Financial Policy), the Joint Staff Surgeon, the Surgeon General of the Navy, the Deputy Surgeon General of the Army, and the Medical Officer of the Marine Corps. Although MJCSG initially had five broadly divided functional areas, the five functions were consolidated into three functional area working groups that made recommendations to the principals: Education and Training; Healthcare Services; and Research, Development, and Acquisition.

BRAC Data Calls. The BRAC 2005 data collection process, established for the United States and its territories, was divided into the following data calls—capacity analysis, supplemental capacity, military value, Cost of Base Realignment Actions (COBRA), Joint Process Action Team Criterion Number 7 (JPAT 7), and scenario specific. The supplemental capacity, military value, COBRA, and JPAT 7 data calls were collectively known as the second data call. Each JCSG developed data call questions related to capacity analysis and military value to obtain information about the functions that they reviewed. Each JCSG was required to issue a capacity analysis and military value analysis report. Each data call had a specific purpose as follows.

- The capacity analysis data call gathered data on infrastructure, current workload, surge requirements, and maximum capacity.

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- The supplemental capacity data call clarified inconsistent data gathered with the initial capacity analysis data call.
 - The military value data call gathered data on mission requirements, land and facilities, mobilization and contingency, and cost and manpower.
 - The COBRA data call gathered data to develop costs, savings, and payback (formerly known as return on investments) of proposed realignment and closure actions.
 - The JPAT 7 data call gathered data to assess the community's ability to support additional forces, missions, and personnel associated with individual scenarios.*
 - The scenario specific data call gathered data related to specific scenario conditions for realignment or closure.

COBRA Model. The Under Secretary of Defense for Acquisition, Technology, and Logistics stated in Policy Memorandum One that the COBRA model used in previous BRAC rounds would be updated, loaded with revised standard cost assumptions, and used by all DoD Components and JCSGs to analyze proposed realignment or closure actions. The Under Secretary stated that the Army would be the lead Service for this effort.

Internal Control Plan and Standard Operating Procedures. The OSD ICP was issued in Policy Memorandum One. Appendix B of Policy Memorandum One is the ICP for all JCSGs. In addition, each JCSG prepared standard operating procedures (SOP) that further delineated controls related to the specific JCSG.

MJCSG issued "Standard Operating Procedures for the Medical Joint Cross-Service Group (MJCSG) Base Realignment and Closure 2005," April 23, 2004. The MJCSG SOP provides information related to controls necessary to safeguard BRAC 2005 deliberative data, documents, decisions, and recommendations for MJCSG. The MJCSG SOP states that all individuals working within or providing support to the BRAC 2005 process are required to sign a nondisclosure agreement. The MJCSG SOP provides guidance for MJCSG-specific data storage requirements, document control, and detailed data management procedures.

Department of Defense Office of Inspector General Responsibility. Policy Memorandum One requires the Department of Defense Office of Inspector General (DoD OIG) to provide ICP development and implementation advice and to review the accuracy of BRAC data and the certification process. In addition, the memorandum requires DoD OIG personnel to assist the JCSGs and DoD Components as needed. This resulting report summarizes issues related to the MJCSG BRAC 2005 process.

* A scenario is a description of one or more potential realignment or closure actions identified for formal analysis by either a JCSG or a Military Department.

Objectives

The overall objective of the audit was to evaluate the validity, integrity, and documentation of data used by MJCSG. Specifically, we determined whether MJCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. We determined whether MJCSG created an adequate audit trail for the input into the COBRA model.

In addition, we evaluated whether MJCSG complied with the OSD ICP and the specific MJCSG SOP. This report is one in a series on JCSG data integrity and internal control processes for BRAC 2005. See Appendix A for a discussion of the audit scope and methodology, our review of the management control programs related to the objectives, and prior audit coverage. See Appendix B for a discussion of the review of COBRA model input for potential candidate recommendations.

Medical Joint Cross-Service Group Data Integrity and Internal Control Processes for BRAC 2005

MJCSG used certified data and data from authoritative sources approved by the ISG and, following our visits, had an adequately documented audit trail for its capacity analysis. Also, sampling results indicated MJCSG used certified data or data from authoritative sources approved by the ISG for its military value analysis. Although the process is complex and may require assistance and computer proficiency to follow, following our visits, MJCSG had an adequate audit trail for its military value analysis. MJCSG also had an adequate audit trail for the input into the COBRA model. In addition, MJCSG generally complied with established internal control procedures from the OSD ICP and the MJCSG SOP. We believe the MJCSG BRAC 2005 process has generally been adequate and reliable.

Medical Joint Cross-Service Group Data Integrity and Documentation for BRAC 2005

We considered the MJCSG BRAC 2005 data to be adequate and reliable. Further, MJCSG created an adequate audit trail for its capacity analysis, its military value analysis, and for input into the COBRA model. MJCSG developed and maintained an MJCSG production database to support its capacity analysis and military value analysis. The MJCSG production database contained certified data from the OSD BRAC Database; data from authoritative sources (American Medical Association, American Dental Association, American Hospital Association, and the U.S. Census Bureau) that were approved by the ISG on August 17, 2004; and certified data received directly from external sources such as medical treatment facilities and The Army Basing Study. At the MJCSG site, we compared capacity analysis and military value analysis data from the OSD BRAC Database and other certified sources with data in the MJCSG production database and with reports generated from the MJCSG production database. We also reviewed MJCSG documentation of its data management and analysis procedures. Finally, we compared data used in the COBRA model for 19 potential candidate recommendations to certified data provided by the Services.

Capacity Analysis. MJCSG used certified data or data from authoritative sources approved by the ISG and, following our initial visits, documented an adequate audit trail for its capacity analysis. The MJCSG BRAC data management team manager explained the data management procedures as follows. OSD transmitted a new version of the certified OSD BRAC Database to the MJCSG data management team manager each week. The data management team manager saved each new version of the OSD BRAC Database as a read-only file on his computer with a time and date stamp. He then linked the OSD BRAC Database file to the MJCSG production database and ran a macro that automatically updated and refreshed the production database, making it current

with the new OSD BRAC Database. The data manager also imported certified data received from other approved sources such as The Army Basing Study into the production database. The data manager copied each new version of the production database onto a compact disk and stored it in a locked safe and loaded the new version onto the MJCSG analysts' computers for their use. The MJCSG production database was then queried to generate the Capacity Analysis Data Call Report spreadsheets, military value analysis data, and other reports as needed.

To verify that MJCSG used certified data in the capacity analysis, we compared certified data in the OSD BRAC Database extract dated August 11, 2004, with 100 percent of the data elements in the MJCSG Capacity Analysis Data Call Report spreadsheets that were generated from that data. We found a small number of data errors that were immediately corrected by the MJCSG data management team manager. We found no data errors during later comparisons of the OSD BRAC Database, the MJCSG production database, and the MJCSG Capacity Analysis Data Call Report spreadsheets. Following our visits and the issuance of a data validation memorandum on March 16, 2005, the MJCSG data management team developed written documentation of its capacity analysis procedures that provided an adequate audit trail for capacity analysis. (See Appendix A for a detailed discussion of the capacity analysis validation.)

Military Value Analysis. In a draft of this report we stated that sample results showed the estimated proportion of errors were within the acceptable percentage criteria and indicated MJCSG used certified data or data from authoritative sources approved by the ISG in its military value analysis for two of the three functional areas (Education and Training, and Healthcare Services). The draft report stated that the proportion of errors or insufficient supporting documentation for the sample for the third functional area (Research, Development, and Acquisition) exceeded the acceptable percentage criteria. Therefore, we could not predict that the Research, Development, and Acquisition functional area primarily used certified data in its military value analysis. Additionally, documentation supporting the process needed improvement. Following the issuance of the draft report, our reevaluation of the initial sample and validation of a second sample showed the estimated proportion of errors were within the acceptable percentage criteria and indicated MJCSG used certified data or data from authoritative sources approved by the ISG in its military value analysis for the Research, Development, and Acquisition functional area. Also, our review of documentation submitted with the MJCSG BRAC recommendations indicated, although the process is complex and may require assistance and computer proficiency to follow, MJCSG had prepared an adequately documented audit trail for its military value analysis.

The MJCSG military value analysis scoring plan was divided into three functional areas with each area contributing a percentage of the overall military value score. The three functional areas were scored individually and included an assessment of the facility's condition and ability to support the function. The three functional area scores were then combined into a single military value score for each medical facility. MJCSG was required to use certified data files from the OSD BRAC Database, The Army Basing Study, or other approved sources.

Initial Military Value Validation. To determine whether MJCSG used certified data in its military value analysis, the DoD OIG Quantitative Methods

Division randomly selected three samples of 208 data fields each (one sample for each of the three functional areas) from tables in the MJCSG production database dated March 22, 2005, that had been used in calculating the military value scores. To predict with 95 percent confidence and a 3 percent tolerance rate, the sample could contain no more than two errors. We compared the data in sample data fields in the MJCSG production database with the data in the certified source files with the following results. The Education and Training sample data and the Healthcare Services sample data all matched the data in the source data files. Therefore, we predicted that these two functional areas primarily used certified data in their analyses. However, for the Research, Development, and Acquisition functional area, we could match the data in only 186 of the 208 sample data fields to certified source data files. As of April 22, 2005, the certified source files supporting 18 of the remaining sample data fields were not available. Also, the data in four of the sample data fields did not match data in the available certified source data files. Because the number of errors exceeded the tolerance limit for the sample, we initially could not predict that the data used by the Research, Development, and Acquisition functional area in its military value analysis had an error rate within the tolerance limit.

Military Value Revalidation. Subsequent to the issuance of our draft report, the MJCSG analysts provided a MJCSG production database dated May 5, 2005. The MJCSG analysts also provided additional and corrected certified source data files. Using these files, we verified that the data in the certified data files matched data in the MJCSG production database for 17 of the 18 sample data elements that we had not validated during our initial review of the Research, Development, and Acquisition sample. We also determined that three of the four data elements initially reported as being incorrect in the MJCSG production database were correct based on the additional or corrected certified data files. Because our revalidation indicated that errors in the initial sample may have been within the tolerance limit, the DoD OIG Quantitative Methods Division randomly selected a second sample of 208 data fields in the MJCSG production database from tables used in the Research, Development, and Acquisition functional area military value analysis. We compared the data in the sample data fields in the MJCSG production database dated May 5, 2005, with certified data in source certified data files and found two discrepancies. Based on these results and the reevaluation of the initial sample, we predicted that the Research, Development, and Acquisition functional area's military value analysis had an error rate within the tolerance limit.

Military Value Audit Trail. Following the issuance of our draft report, the MJCSG data management team provided the written documentation of its military value analysis procedures in an appendix to its BRAC 2005 final report. This documentation was used to support the MJCSG recommendations. We reviewed this documentation and were able to follow the process. Although the military value analysis is a complex process that may require assistance and computer proficiency to follow, we believe the documentation provides an adequate audit trail. (See Appendix A for further details on the sampling plan and analysis.)

COBRA Model Input. MJCSG created an adequate audit trail for its COBRA model input and analysis of potential candidate recommendations. The Military Services and JCSGs were required to use the COBRA model to analyze their

potential candidate recommendations. The Services each maintained a secure, controlled access, on-line data repository (BRAC portal) to facilitate the collection and dissemination of data to be used in the COBRA analyses. Authorized MJCSG analysts would access the BRAC portals to request data and to retrieve data posted by the Services. The MJCSG analysts then manually entered the data retrieved from the BRAC portals and data obtained from other sources into the COBRA model for analysis. The Services continuously updated their BRAC portals as additional data were collected or when existing data were corrected or modified.

We reviewed the COBRA analyses of 19 potential candidate recommendations (Education and Training–4; Healthcare Services–11; and Research, Development, and Acquisition–4). The COBRA analyses were performed in March 2005 using COBRA model version 6.08. We did not review one additional potential candidate recommendation because the scenario was still evolving and all data had not been received as of April 15, 2005. Initially, not all supporting data were certified by the Services. However, in instances when uncertified data were used, it came from sources such as the Medical Expense Performance Reporting System, military construction planning factors, and Program Objective Memorandum data. When MJCSG made a change to a Service’s certified data or used another Service’s data or estimate, the changes or estimates were later certified by the Services and entered on their portals. After comparing the COBRA data with the available supporting documentation, we discussed any discrepancies and obtained additional documentation, clarification, or explanation from the functional area representatives. In addition, for 17 of the 19 potential candidate recommendations, we compared the data in the COBRA model input with the data on the Services BRAC portals as of April 2005. We found no significant errors in the data that would preclude any of the 19 potential candidate recommendations from continuing in the process. Further, MJCSG provided an adequate audit trail to determine the sources of the data used to support the potential candidate recommendations. (See Appendix B for further details on the individual potential candidate recommendations reviewed.)

Medical Joint Cross-Service Group Internal Control Processes for BRAC 2005

MJCSG complied with the OSD ICP and the MJCSG SOP. MJCSG was in compliance with the OSD ICP in that MJCSG followed OSD ICP data collection and certification procedures, documented deliberative meetings, completed nondisclosure agreements, and marked and safeguarded BRAC data. MJCSG was in compliance with its SOP in that MJCSG had followed the MJCSG-specific data storage requirements, document controls, and data management procedures specified in the MJCSG SOP.

Compliance with OSD ICP. MJCSG complied with the OSD ICP. The OSD ICP procedures required that:

- the BRAC 2005 process be clearly recorded;

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- information used in the analysis be certified by the appropriate authority for accuracy and completeness, and that the information be used consistently;
 - data collected and used for analyses and decision making be obtained from appropriate sources;
 - minutes be recorded for all deliberative meetings;
 - oral briefings be captured in minutes;
 - outside studies be brought to the attention of any BRAC group;
 - technical experts submit information or data in writing with the required certification if the JCSG considered the data relevant;
 - nondisclosure agreements be maintained for all participants in the BRAC process; and
 - BRAC 2005 documents be marked as draft deliberative or sensitive.

We verified that MJCSG had followed the OSD ICP requirements by attending MJCSG deliberative meetings, reviewing the data collection and certification procedures during site visits, reviewing minutes of deliberative meetings, reviewing nondisclosure agreements for MJCSG members and support personnel during site visits and at deliberative meetings, reviewing MJCSG BRAC-related documents for appropriate markings, and observing the procedures for safeguarding BRAC data during site visits.

Compliance with MJCSG SOP. MJCSG fully complied with its SOP. All individuals working in or supporting the BRAC process were required to sign nondisclosure agreements. Data storage requirements and document control measures were established to safeguard the BRAC 2005 deliberative data, documents, decisions, and recommendations. The MJCSG SOP also provided detailed data management procedures to maintain the integrity of the BRAC data throughout the process. We verified that MJCSG adhered to these SOP requirements during our site visits.

Conclusion

MJCSG used certified data or data from authoritative sources approved by the ISG and developed an adequate audit trail for its capacity analysis. Our review of sample data indicated MJCSG used certified data or data from authoritative sources approved by the ISG for its military value analysis. Although the process is complex and may require assistance and computer proficiency to follow, we believe the MJCSG developed an adequate audit trail for its military value analysis. Further, MJCSG created an adequate audit trail for the input into the COBRA model. Finally, MJCSG complied with established internal control procedures from the OSD ICP and MJCSG SOP. We believe the MJCSG BRAC 2005 process has been adequate and reliable.

Appendix A. Scope and Methodology

We evaluated the validity, integrity, and documentation of data used by MJCSG. Specifically, we determined whether MJCSG had used certified data and had created an adequate audit trail for its capacity analysis and military value analysis. We also evaluated whether MJCSG had created an adequate audit trail for input into its COBRA analyses of potential candidate recommendations. Further, we evaluated whether MJCSG complied with the OSD ICP and the MJCSG SOP.

BRAC 2005 Process Integrity. We evaluated the integrity of the MJCSG BRAC 2005 process. Our evaluation included:

- ensuring methodologies were sufficiently documented, and
- comparing data used to make deliberative decisions to certified or authoritative data.

From March 2003 through April 2005, we attended MJCSG meetings, reviewed the formal minutes and briefing charts of the meetings, and monitored the MJCSG BRAC Web site to verify that decisions made by MJCSG were adequately documented. We also observed MJCSG data management procedures and practices to ensure compliance with the MJCSG SOP.

Capacity Analysis. To determine whether MJCSG used certified data in the capacity analysis, we compared data in the OSD BRAC Database dated August 11, 2004; the corresponding MJCSG production database; and the MJCSG Capacity Analysis Data Call Report spreadsheets that were generated from this data. Each of the 13 sections of the MJCSG Capacity Analysis Data Call Report listed 232 Military activities for a potential of 3016 lines of data, with each line containing one or more data elements. However, all sections of the MJCSG Capacity Analysis Data Call Report did not apply to all 232 Military activities. We reviewed and compared every data element in the 13 sections of the MJCSG Capacity Analysis Data Call Report spreadsheets with data in the OSD BRAC Database. During this comparison, we found a small number of errors that were immediately corrected by the MJCSG data management team manager. We later performed a comparison of capacity analysis data in the OSD BRAC Database files dated October 6, 2004, with the corresponding MJCSG Capacity Analysis Data Call Report spreadsheets and found no discrepancies between the data sets. Further, we performed spot comparisons of capacity analysis data in OSD BRAC Database files dated November 4, 2004, and December 22, 2004, with corresponding MJCSG production database files and MJCSG Capacity Analysis Data Call Report spreadsheets and found no discrepancies in the data. To determine whether MJCSG created an adequate audit trail for its capacity analysis, we reviewed documents describing the MJCSG capacity analysis procedures.

Military Value. To determine whether MJCSG used certified data for its military value analysis, the DoD OIG Quantitative Methods Division used a quantitative analysis sampling plan to randomly select samples of 208 data fields from each of the three functional area's data tables in the MJCSG production database as

follows: Education and Training—208 of 26,542; Healthcare Services—208 of 119,313; and Research, Development, and Acquisition—208 of 36,627. These data fields were potentially used to calculate military value scores. To predict with 95 percent confidence and a 3 percent tolerance rate, the sample could contain no more than two errors. We compared the data in the sample data fields from the MJCSG production database dated March 22, 2005, with data in the certified extract of the OSD BRAC Database dated March 17, 2005, or with certified data that had been received outside the OSD BRAC Database from other approved sources, such as The Army Basing Study. Our initial comparisons yielded the following results.

- The 208 sample data elements in the MJCSG production database for the Education and Training functional area matched certified data in the approved sources data files, thereby meeting our percentage criteria.
- The 208 sample data elements in the MJCSG production database for the Healthcare Services functional area matched certified data in the approved sources data files, thereby meeting our percentage criteria.
- Only 186 of the sample data elements in the MJCSG production database for the Research, Development, and Acquisition functional area could be matched to data in the certified source data files. The data in 18 sample data fields could not be matched because the MJCSG had not provided the applicable certified source data files. Also, the data in four sample data fields did not match data in the certified source data files. This sample did not meet our criteria and, therefore, we could not predict that the data used by the Research, Development, and Acquisition functional area had an error rate within the tolerance limit.

Military Value Revalidation. Subsequent to the issuance of our draft report, MJCSG provided a MJCSG production database dated May 5, 2005, and additional and corrected certified source data files. Using these files, we verified that the data in 17 of the 18 data fields that had not been validated matched data in the newly obtained certified source data files. We also verified that three of the four data elements in the MJCSG production database that we had initially recorded as incorrect were correct based on the corrected certified source data files. The DoD OIG Quantitative Methods Division randomly selected a second sample of 208 data fields in the MJCSG production database from tables used in the Research, Development, and Acquisition functional area military value analysis. The 208 sample data elements in the MJCSG production database dated May 5, 2005, matched certified data in the approved sources data files, with the exception of two data elements, thereby meeting our percentage criteria.

To determine whether MJCSG created an adequate audit trail for its military value analysis, we reviewed documents describing the MJCSG military value procedures throughout the process, discussed the procedures with the MJCSG data analysts, and conducted analyses of data samples. Subsequent to the issuance of the draft report, we reviewed the military value report that accompanied the final MJCSG BRAC 2005 recommendations.

COBRA Model Input. We reviewed input for COBRA model version 6.08* for 19 MJCSG potential candidate recommendations that had been approved by ISG as of April 15, 2005 [Education and Training–4; Healthcare Services–11; and Research, Development, and Acquisition–4]. Specifically, we reviewed electronic and hard copy documents, memorandums, estimates and assumptions, and verbal testimony provided by the Services and MJCSG that provided the basis for the data in the COBRA model. Additionally, from April 13 to April 15, 2005, for 17 of the 19 potential candidate recommendations, we compared the data in the COBRA model input to data that were on the Services BRAC portals. We did not review one additional potential candidate recommendation (MED-002) because the scenario was still being revised and all data had not been received as of April 15, 2005. We did not evaluate recent revisions to some of these scenarios nor did we evaluate analyses performed using later versions of the COBRA model because none of these revisions or analyses had been completed as of April 15, 2005.

We performed this audit from March 2003 through June 2005 in accordance with generally accepted government auditing standards.

Use of Computer-Processed Data. To achieve the audit objectives, we relied on computer-processed data from the OSD BRAC Database and the MJCSG BRAC production database. We assessed the reliability of capacity analysis and military value data in the MJCSG BRAC production database by comparing it with data in the OSD BRAC Database. The data in the MJCSG production database generally matched data in the OSD BRAC Database. Assessing the reliability of the OSD BRAC Database was beyond the scope of our review.

Use of Technical Assistance. Technical assistance was provided during the audit by operations research analysts in the Quantitative Methods Division of the Office of the Deputy Inspector General for Audit. The operations research analysts designed a random sampling methodology and analyzed MJCSG documentation for the military value analysis validation.

Government Accountability Office High-Risk Areas. The Government Accountability Office has identified several high-risk areas in DoD. This report provides coverage of the Managing Federal Real Property and the DoD Approach to Business Transformation, DOD Support Infrastructure Management high-risk areas.

Management Control Program Review

We evaluated the MJCSG management controls for documenting and safeguarding information associated with the BRAC 2005 data calls, as directed by the OSD ICP. Specifically, we reviewed nondisclosure agreements, deliberative meeting minutes, storage of BRAC data, and the supporting documentation for MJCSG BRAC data. Management controls were generally

* The COBRA model was updated throughout the BRAC 2005 process when standard factors changed or formulas were corrected. Version 6.08 was in use during March 2005.

adequate as they applied to the audit objectives. The JCSGs were established as part of the BRAC process and therefore would not have management control programs outside of the BRAC process.

Prior Coverage

During the last 5 years, the DoD Inspector General and the Army Audit Agency (AAA) issued four reports and memorandums concerning the Medical Joint Cross-Service Group involvement in the BRAC 2005 process and one report on the COBRA model.

DoD Inspector General

DoD IG Memorandum, "Validation of the Base Realignment and Closure 2005 Capacity and Military Value Data Used by the Medical Joint Cross-Service Group," March 16, 2005

Army Audit Agency

AAA Report No.A-2005-0169-ALT, "Validation of Army Responses for Joint Cross-Service Group Questions," April 22, 2005

AAA Report No.A-2005-0083-ALT, "Army Military Value Data: The Army Basing Study 2005," December 21, 2004

AAA Report No.A-2004-0544-IMT, "Cost of Base Realignment Action (COBRA) Model: The Army Basing Study," September 30, 2004

AAA Report No.A-2004-0441-IMT, "Validation of Army Installation Capacity Data for Base Realignment and Closure 2005, Medical Joint Cross-Service Group," August 5, 2004

Appendix B. Review of COBRA Model Input for Potential Candidate Recommendations

We reviewed COBRA model input for 19 MJCSG potential candidate recommendations. Each of the potential candidate recommendations had been analyzed by MJCSG in March 2005 using COBRA model version 6.08. The following is a synopsis of our review of each potential candidate recommendation.

Education and Training Potential Candidate Recommendations

MED-005. MJCSG performed this COBRA analysis on March 11, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. During our initial review we found three instances that were not clear as to the source of the data or needed more documentation to support a statement. However, following discussions with the MJCSG analysts, MJCSG provided adequate documentation to support the data and statements. MJCSG had adjusted some data based on military judgment; however, all of the adjustments were then certified by the Services. We verified that the data used in this analysis were also on the Services BRAC portals in April 2005.

MED-012. MJCSG performed this COBRA analysis on March 7, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found seven instances that were not clear as to source of the data or needed more documentation to support a statement. However, following discussions with MJCSG analysts, adequate documentation was provided to support the data and statements. MJCSG changed some data based on military judgment and obtained some data from the Program Objective Memorandum. Although the military judgment data and Program Objective Memorandum data were not certified at the time of use, the data were on the Services BRAC portals and were now certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-029. MJCSG performed this COBRA analysis on March 24, 2005, using COBRA model version 6.08. MJCSG had support for data used in the scenario. We found three instances that were not clear as to the source of the data. Following discussions with MJCSG analysts, adequate documentation was provided to support the data. MJCSG changed some data based on military judgment. However, all revised data has been certified by the Services. We did not verify that the data used in this scenario were on the Services BRAC portals.

MED-030. MJCSG performed this COBRA analysis on March 11, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found six instances that were not clear as to the source of the data or needed more documentation to support a statement. Following discussions with the MJCSG analysts, adequate documentation or explanations were provided. MJCSG revised some data elements based on military judgment.

However, the Services had certified all of the revised data elements. We verified that the data in this analysis were on the Services BRAC portals in April 2005.

Healthcare Services Potential Candidate Recommendations

MED-004-Army. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found three instances that were not clear as to the source of the data or needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided to support the data and statements. MJCSG changed some data based on military judgment. However, the Service had certified all of the revised data. We verified that the data used in the analysis were on the Services BRAC portals in April 2005.

MED-004-Navy. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance that needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided. MJCSG changed some data based on military judgment. However, the revised data had been certified. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-004-Air Force. MJCSG performed this COBRA analysis on March 4, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found two instances that were not clear as to source of the data or needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided to support the data and statements. MJCSG changed some data based on military judgment. However, all the revised data elements had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-016. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found 10 instances that were not clear as to the source of the data or needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation and clarifications were provided. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-018. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found five instances that were not clear as to the source of the data or needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided to support the data and statements. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-022. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the

scenario. We found one instance that was not clear as to the support for the numbers. Following discussions with MJCSG analysts, adequate support was provided. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-049. MJCSG performed this COBRA analysis on March 4, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance that needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-050. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance that needed more documentation to support the statement. Following discussions with MJCSG analysts, adequate documentation was provided to support the statement. MJCSG changed some data based on military judgment. However, the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-052. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found no instances where the data or statements were not clear as to the source or needed additional documentation. MJCSG changed some data based on military judgment. However, all revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-053. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance of a footnote that was not clear. Following discussions with MJCSG analysts, the analyst agreed to clarify the footnote. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-054. MJCSG performed this COBRA analysis on March 9, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found no instances where the data was not clear as to its source or more documentation was needed. MJCSG changed some data based on military judgment. However, all the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in 2005.

Research, Development, and Acquisition Potential Candidate Recommendations

MED-024. MJCSG performed this COBRA analysis on March 7, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. The assumptions that the scenario would result in a 10 percent reduction in affected personnel at Fort Sam Houston and a 15 percent reduction in affected personnel at Walter Reed were not initially explained or supported. In response to our review, the MJCSG workgroup documented a rationale for this situation based on the type of personnel being moved and the types of existing facilities involved. MJCSG changed some data based on military judgment. However, all of the revised data had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

MED-025. MJCSG performed this COBRA analysis on March 7, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance that was not clear as to the source of the numbers. Following discussions with MJCSG analysts, adequate documentation and clarification were provided. MJCSG changed some data based on military judgment. However, all of the revised data had been certified by the Services. We did not verify that data used in this analysis were on the Services BRAC portals.

MED-028. MJCSG performed this COBRA analysis on March 7, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one instance that was not clear as to the source of the numbers, but the issue was resolved with adequate documentation. MJCSG changed some data based on military judgment. However, all of the revised data had been certified by the Services. We verified that data used in this analysis were on the Services BRAC portals in April 2005.

MED-057. MJCSG performed this COBRA analysis on March 10, 2005, using COBRA model version 6.08. MJCSG had support for the data used in the scenario. We found one error in the data that was corrected and supported with adequate documentation. MJCSG changed some data based on military judgment. However, all of the revised data elements had been certified by the Services. We verified that the data used in this analysis were on the Services BRAC portals in April 2005.

Appendix C. Report Distribution

Office of the Secretary of Defense

Director, Base Realignment and Closure (Installations and Environment)

Chair, Medical Joint Cross-Service Group

Non-Defense Federal Organizations

Government Accountability Office

Medical Joint Cross-Service Group Comments

Final Report
Reference



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

June 16, 2005

MEMORANDUM FOR PROGRAM DIRECTOR, READINESS AND LOGISTICS SUPPORT,
OFFICE OF THE DEPARTMENT OF DEFENSE INSPECTOR
GENERAL

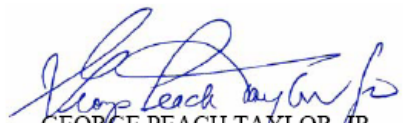
FROM: Medical Joint Cross Service Group

SUBJECT: Report on Medical Joint Cross-Service Group Data Integrity and Internal Control
Processes for Base for Base Realignment and Closure 2005

Reference your memorandum, June 2, 2005, subject as above.

The Medical Joint Cross Service Group worked diligently over the past two years to ensure compliance with stringent OSD guidance on the use of certified data in the capture of capacity data from the field, and the conduct of our military value analysis as outlined in our standard operating procedure.

From previous discussions with your staff, the concern with Medical RDA data was the inability to locate the Army certification memorandum regarding Requests for Clarification for questions 4242-4246. We've attached the EXCEL files that contain this data, along with a copy of the corresponding Army certification memorandum. Additionally, the data normally collected within the capacity and military value process regarding the Navy Bureau of Medicine was collected in the Scenario Data Call Phase.


GEORGE PEACH TAYLOR, JR.
Lieutenant General, USAF, MC, CFS
Chairman

Attachments

1. Army External Data and Certification Letters
2. BUMED Scenario Data Call

Attachments
omitted

Team Members

The Department of Defense Office of the Deputy Inspector General for Auditing, Readiness and Logistics Support prepared this report. Personnel of the Department of Defense Office of Inspector General who contributed to the report are listed below.

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